

CLAIMS

1. An antenna coil characterized by comprising:

a core formed by shaping a magnetic material into a bar-like configuration;

a bobbin having a through-hole into which the core is to be inserted;

a connection section fixed to the bobbin so as to extend in a length direction of the core from the bobbin, with the core inserted into the through-hole;

a winding which is wound around the bobbin and whose ends are connected to the connection section; and

a connector terminal which is provided at a certain position in the length direction of the core, which fixes the connection section in position, and which determines a position of the winding in the length direction of the core.

2. An antenna coil according to Claim 1, characterized in that:

the connector terminal is provided on a connector main body having another through-hole into which the core is to be inserted.

3. An antenna coil according to Claim 2, characterized in that:

the connection section is formed of a rigid material;

a second through-hole is formed in the connector main body so as to extend along the other through-hole; and

the connection section is inserted into the second through-hole.

4. An antenna coil according to Claim 2, characterized in that:
a capacitor is provided on the connector main body; and the connector terminal is connected to the capacitor.

5. An antenna coil according to any one of Claims 1 through 4, characterized in that:

the connection section has two conductive rigid members;
one end of the winding is connected to one rigid member of the connection section;

another end of the winding is connected to another rigid member of the connection section;

the connector terminal has two conductive joint portions;
one joint portion of the connector terminal fixes in position the rigid member of the connection section to which the one end of the winding is connected; and

another joint portion of the connector terminal fixes in position the rigid member of the connection section to which the another end of the winding is connected.

6. An antenna device characterized by comprising:
an antenna coil according to any one of Claims 1 through 5;
a holder having an accommodating portion formed by a holder

main body and a side surface portion provided upright on the holder main body, with the accommodating portion accommodating the antenna coil; and

a cover for hermetically sealing the accommodating portion.

7. An antenna device according to Claim 6, characterized in that:

the connector terminal of the antenna coil is provided on a connector main body having another through-hole into which the core is to be inserted; and

the side surface portion and the connector main body of the antenna coil respectively have engagement portions engaged with each other and determining a position of the connector main body in a length direction of the core.

8. An antenna device according to Claim 7, further comprising two cushion members having through-holes into which the core of the antenna coil is inserted and higher than a depth of the accommodating portion,

characterized in that an engagement member provided on the cover is inserted into a through-hole formed in the holder main body, whereby the cover hermetically seals the accommodating portion.